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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/050,084	01/14/2002	A. L. Pepper Aasgaard	ASA 01-2-1	6254

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SUITER WEST PC LLO
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SUITE 220
OMAHA, NE 68154

EXAMINER

SAETHER, FLEMMING

ART UNIT

PAPER NUMBER

3679

DATE MAILED: 06/26/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application N .

10/050,084

Applicant(s)

AASGAARD, A. L. PEPPER

Examiner

Flemming Saether

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 21 April 2003.
- 2a) ☒ This action is FINAL. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-6, 8-36 and 38-40 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-6, 8-36 and 38-40 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

Claim Rejections - 35 USC § 102

Claims 1, 2, 5, 6, 8, 11-14, 20, 21, 24-26, 29, 30 and 41-42 are rejected under 35 U.S.C. 102(b) as being anticipated by Keller (Swiss 671,617). Keller discloses a rivet assembly comprising a rivet body (1) including a flange (2) and a mandrel (3) positioned through the sleeve. The mandrel including in auger (5, 6) having a cutting portion (read as the conical portion at the tip) and a polishing portion (read as the cylindrical portion adjacent the conical portion). An angled and curved groove (not labeled) with a cutting edge formed on the auger extending from the cutting portion to the polishing portion performing the cutting and polishing operations forming an angle at each which are the same.

Claim Rejections - 35 USC § 103

Claims 1, 2, 4, 13-15, 16-21, 23, 26, 28 and 31-44, some alternatively, are rejected under 35 U.S.C. 103(a) as being unpatentable over Aasgaard '901 as applied above, and further in view of Tisserant. In Fig 9 of applicant's prior patent there is shown a rivet assembly wherein the mandrel includes a self tapping a drilling auger (94). The auger includes a longitudinal groove (95) which inherently would have a leading and trailing edge, a tip for penetrating the workpiece and, a means formed as a helix for advancing the auger into a material. Aasgaard further discloses the threaded bolt head, the shoulder portion and the particulars of the mandrel as claimed. Aasgaard does not disclose some specifics of the mandrel including the polishing edge. Tisserant discloses an auger comprising a longitudinal groove with a leading cutting and polishing

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edge (20) and a trailing cutting edge there further being provided a polishing edge (the groove at the portion labeled 12). The edge is arranged longitudinally and forms an angle at both the cutting and polishing edge. There may be provided a self piercing point (at 30) and a thread (as can be seen by where the threads are angled). At the time the invention was made, it would have been obvious for one of ordinary skill in the art to replace the auger of Aasgaard '901 with one as described in Tisserant in order to provide a more efficient drilling into sheet metal as disclosed in Tisserant.

Claims 3, 5, 8, 9, 11, 22, 24, 27, 29 and 37 are rejected under 35 U.S.C. 103(a) as being unpatentable over Aasgaard '901 as modified by Tisserant as applied to claims 1, 2, 20, 26 and 36 above, and further in view of Korb. Korb discloses an auger having a cutting edge (22) angled with respect to the longitudinal axis and extending further from the axis than the trailing edge (see Fig. 4). At the time the invention was made, it would have been obvious for one of ordinary skill in the art to form the groove and cutting edges of Aasgaard '901 or Aasgaard '901 as modified by Tisserant as disclosed in Korb in order to provide for a more efficient drilling facilitated by the improved configuration of the cutting edge.

Claims 6, 12, 25, and 30 are rejected under 35 U.S.C. 103(a) as being unpatentable over Aasgaard '901 as modified by Tisserant and Korb as applied to claims 1, 7, 20, or 29 above, and further in view of Peterson. Peterson teaches to provide a cutting edge (30) and polishing edge (at 25) with a curve. At the time the

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invention was made, it would have been obvious for one of ordinary skill in the art to form the cutting/polishing edge of Aasgaard '901 alone or as modified by Tisserant and/or Korb with curve as disclosed in Peterson in order to provide for better cutting and material removal.

In response to applicant's Remarks:

The 102 rejection involving Aasgaard '901 is now moot in view as necessitated by the amendment. However, since the claims are still written broadly using functional language, another 102 rejection could be applied as set forth above.

Applicant next argues the 103 rejection suggesting that the auger portion including a cutting and polishing position is not taught in any of the references applied and further arguing the lack of motivation for the combination.

Applicant notes that the reference to Tisserant relied upon by the examiner for the auger is a drill bit for forming different diameter holes in sheet metal and does not include any discussion of deburring or polishing. In response, the examiner does not dispute the intent of Tisserant is for drilling different diameter holes as recognized by applicant however, it still has the features required of the auger as claimed. Tisserant discloses both the cutting and polishing portions including the edge for shaving material and the edge to polishing as required in the claims the fact that it has a different intended use it still could be used to auger all the way through the sheet metal. Indeed,

the largest level "N" as disclosed in Tisserant is at the portion 12, which is the largest diameter portion. Furthermore, even though it is not required since it is claimed as an intended use, Tisserant discloses "cutting clean holes" (column 1, second paragraph) which inherently would be inclusive of deburring and polishing. Lastly, it should be noted that Tisserant is relied upon only for the auger due to its improved ability of "clean" cutting into sheet metal and not any features related to the rivet since that is disclosed in Aasgaard.

Contrary to applicant's remarks, Tisserant does include a "point suitable for piercing". The point (30) in would be capable of piercing function as required of the claims even though it may not be the preferred function.

In response to applicant's argument that there is no suggestion to combine the references, the examiner recognizes that obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either in the references themselves or in the knowledge generally available to one of ordinary skill in the art. See *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988) and *In re Jones*, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992). In this case, the skilled artisan would have recognized the improved cutting provided by Tisserant i.e., the cutting of clean holes.

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Since the other references applied were not specifically argued with regard to what they are relied upon to teach, no further response is believed necessary.

Applicant is reminded that only Tisserant was relied upon for the cutting and polishing features of the auger. However, this is not to imply that such features may not also be taught elsewhere.

Conclusion

In conclusion, for the above stated reasons, the examiner believed the rejections are proper and as therefore has been maintained.

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

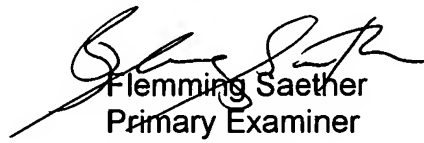
A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.

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Any inquiry concerning this communication or earlier communications from the examiner should be directed to Flemming Saether whose telephone number is 703-308-0182. The examiner can normally be reached on Monday through Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Lynne Browne can be reached on 703-308-1159. The fax phone numbers for the organization where this application or proceeding is assigned are 703-872-9326 for regular communications and 703-872-9327 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-2168.



Flemming Saether
Primary Examiner
Art Unit 3679

June 23, 2003